Acta Zootaxonomica Sinica, 30 (3): 609– 612 (July, 2005) ISSN 1000-0739
动物分类学报

NOTES ON TWO GENERA OF ENCYRTIDS NEWLY RECORDED FROM CHINA WITH DESCRIPTIONS OF THREE NEW SPECIES (HYMENOPTERA, ENCYRTIDAE)

XU Zhi-Hong[1, 2], CHEN Jun-Hua[2], HUANG Jian[1]
1. *Key Laboratory of Biopesticide and Chemical Biology, Fujian Agriculture and Forestry University, Fuzhou* 350002, *China*
2. *Institute of Applied Entomology, Agriculture & Biotechnology College, Zhejiang University, Hangzhou* 310029, *China*

Abstract The present paper describes three new species of Encyrtidae (Hymenoptera, Chalcidoidea), collected from Jilin and Fujian Provinces, China, i. e. *Cerchysiella citricola* Xu, sp. nov., *Neocladella platicornis* Xu, sp. nov., and *Schilleriella brevipterus* Xu, sp. nov., The first species is a parasitic in the predacious beetle *Cybocephalis nipponicus* Endr. -Younga. The second species host is unknown, the third species host is mealy bug. The genera *Neocladella* Girault and *Schilleriella* Ghesquiere are first recorded from China. The specimens of the three species are deposited in the Institute of Applied Entomology, Agriculture & Biotechnology College, Zhejiang University.

Key words Hymenoptera, Encyrtidae, *Cybocephalis*, new species.

When study of the collected material of parasitic wasps in Institute of Applied Entomology, Agriculture & Biotechnology College, Zhejiang University, three encyrtid species are found new to science, which were colledted from Jilin and Fujian Provinces respecitively. There are: *Cerchysiella citricola* Xu, sp. nov., which is a parasitoid on Cybocephalis nipponicus (Cybocephalidae, Coleoptera), *Neocladella platicornis* Xu, sp. nov., which host is unknown and *Schilleriella brevipterus* Xu, sp. nov., which host is mealy bug. The later two genera are also newly recorded to China. The three new species are described in detail as follows. The scale in the figures is 0. 2 mm. All new species type specimens are deposited in The Institute of Applied Entomology, Agriculture & Biotechnology College, Zhejiang University, Hangzhou.

1 Cerchysiella **Girault**

Aratus Howard, 1897: 155. Type species: *Aratus scutellatus* Howard. [Homonym of *Aratus* Milne-Edwards, 1853]

Cerchysiella Girault, 1914: 60. Type-species: *Cerchysiella nigrella* Girault. *Zeteticontus* Silvestri, 1915: 343. Type species *Zeteticontus abilis* Silvestri.

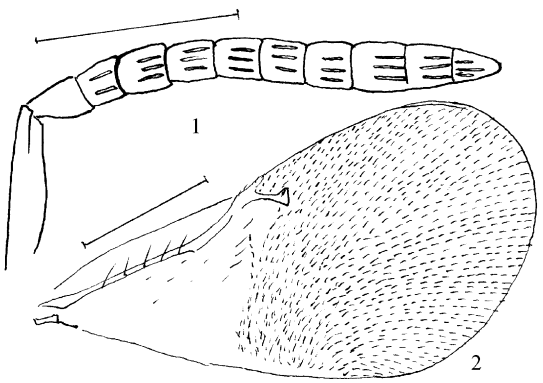
Hosts. Larvae of Nitidulidae, Cryptophagidae, Erotylidae, Silvanidae, Coleoptera, and larvae of Diptera.

Distribution. 26 species, Holarctic, one species i. e. Cerchysiella koenigsmanni (Trjapitzin, 1985), known in Guangdong, China.

1.1 Cerchysiella citricola **Xu, sp. nov.** (Figs. 1-2)

Female. Body length 1. 33 mm. Black brown, without metallic reflections. Antenna yellow; femora, ends of tibiae and tarsi white. Wings hyaline.

Head. Frontovetex with sparse punctuations; head in frontal view 1. 2 times as wide as high, malar space 0. 6 times as long as longitudinal diameter of eye; torulli separated from each other by 1. 5 times their own longest diameters, upper margin above lowest level of eye; torulli separated from clypeus by the distance 2. 0 times as long as the longest diameter of torullus.



Figs. 1-2. *Cerchysiella citricola* Xu, sp. nov. 1. Antenna. 2. Fore wing.

Antennae. Scape hardly expanded ventrolly, 5. 0 times as long as maximum width, pedicel 1. 0 times as long as wide at apex, 1. 1 times as long as first funicu-

The project was supported by National Natural Science Foundation of China (30170760); the Project from Education Department of Fujian Province (K04036).

Received 9 Dec. 2004, accepted 28 Mar. 2005.

lar segment; first funicular segment 0.9 times as long as wide, other funicular segments equal in length and narrowed apically, sixth funicular segment 1.0 times as long as wide; clava 3 segmented, 0.6 times as long as first-sixth funicular segments combined, clearly wider than sixth funicular segment, pointed apically.

Thorax. Mesoscutum with setigerous punctuations, scutellum flat, with 30 punctuations and without sculpture.

Fore wing. 2.2 times as long as wide, submarginal vein with 5 setae, parastigma developed, marginal vein longer than wide, marginal and postmarginal veins shorter than stigma respectively; speculum with 4 setae in one row, 5 filum spinosum in one row directed towards junction of marginal and submarginal vein, basal triangle nearly nude; outside speculum uniformly pubescent.

Leg. Mid tibiae with 6 spines at apex; spur 1.1 times as long as basal tarsi; basal tarsi 0.9 times as long as the second- fourth tarsi combined.

Gaster. Elongated oval, obtusely rounded apically; pygostyli located on basal 0.4 of gaster, ovipositor exserted.

Measurement. Taking mid tibia length as 100 (= 0.38 mm), then thorax 141, gaster 162, fore wing 266, ovipositor 151, exserted part of ovipositor 31.

Host. *Cybocephalis nipponicus* Endr.-Younga (on pomelo *Citrus grandis*).

Distribution. Fujian Province (Fuzhou).

Holotype ♀, Fuzhou, Jinshan (26° 0′ N, 119°18′E), Fujian Province, 12 May 1984, HUANG Jian, C9031.

Diagnosis. This species is similar to *Cerchysiella kuwatai* Tachikawa, 1985 but can be distinguished from the latter by: 1) scape 5.0 times as long as wide; 2) antennae with first funicular segment slightly wider than long; 3) ovipositor with exerted part shorter than 0.2 times of gaster.

Etymology. Named after the primary host.

Key to Chinese Cerchysiella **species**

1. Antenna yellow, with scape 5.0 times as long as wide, the first funicular segment slightly wider than long ……
…… Cerchysiella citricola **Xu, sp. nov.**
Antenna with the first to fourth funicular segments white and with scape 2.0 times as long as wide, the first funicular segment apparantly wider than long …… Cerchysiella koenigsmanni (**Trjapitzin**)

2 Neocladella **Girault New record to China**

Neocladella Girault, 1915. *Memoirs of the Queensland Museum*, 4: 99. Type-species: *Neocladella compressipes* Girault.

Pteromalencyrtus Girault, 1915. *Memoirs of the Queensland Museum*, 4: 116. Type-species: *Neocladella quadridentatus* Girault, Syn. of *Neocladella compressipes* Girault.

Host. Unknown.

Distribution. Cosmopolitan.

Neocladella platicornis **Xu, sp. nov.** (Figs. 3-7)

Female. Body length 2.06 mm. Body yellow brown, thorax with green metallic reflections. The following parts white: fore trochanters, tibiae and tarsi, both ends of mid femora, hind trochanters; the following parts yellowish: mid femora, tibiae, tarsi, the first-fourth segments of hind tarsi. Wings hyaline.

Head. frontovetex with sparse punctuations; OCL and OOL are 1.1 and 0.6 times as long as diameter of anterior ocellus respectively, head in frontal view 0.9 times as wide as high, malar space 0.8 times as long as longitudinal diameter of eye; torulli upper margin below lowest level of eye; torulli separated from clypeus by the distance 1.1 times as long as the longest diameter of torullus. Mandible 4 denticles, maxillary palpi 4 segments, labial palpi 3 segments, with apex obtusely rounded.

Antennae. Scape strongly expanded ventrolly, 1.7 times as long as maximum width, pedicel triangular, 1.6 times as long as wide at apex, 2.8 times as long as first funicular segment; all funicular segments equal in length and widened apically, first funicular segment 0.6 times as long as wide, sixth funicular segment 0.4 times as long as wide; clava 3 segmented, 0.4 times as long as fifth-sixth funicular segments combined, as wide as the sixth funicular segment, obtusely rounded apically.

Thorax. Mesoscutum with setigerous punctuations, scutellum flat, with 14 setigerous punctuations; propodeum 0.17 times as long as scutellum.

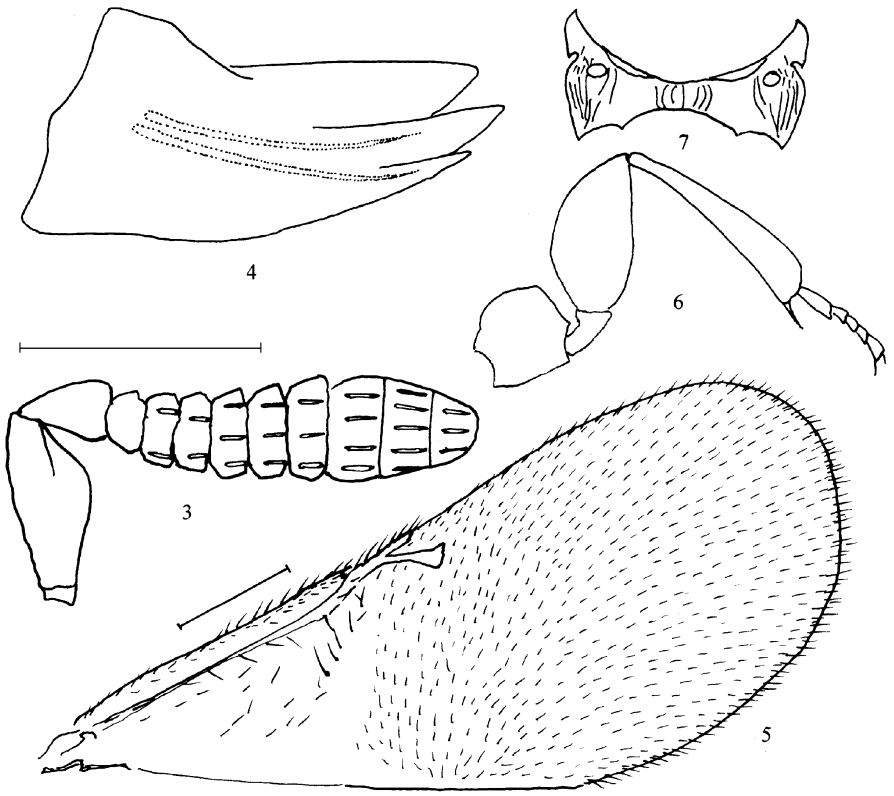
Fore wing. 2.4 times as long as wide, submarginal vein with 9 setae, parastigma with 4 setae, submarginal, parastigma, marginal and postmarginal veins as long as 4.7, 1.4, 1.0 and 0.3 times of stigma respectively; basal triangle nude; strong black setae between basal triangle and linea calva, outside marginal vein uniformly pubescent.

Leg. Mid tibiae with 1 spines at apex; tibia spur 0.9 times as long as basal tarsi; basal tarsi 0.9 times as long as the second-fourth tarsi combined.

Gaster. Triangular, obtusely rounded apically; pygostyli located on basal 0.33 of gaster, ovipositor not exserted.

Measurement. Taking mid tibia length as 100 (= 0.36 mm), then thorax 196, gaster 224, ovipositor 100.

Host. Unknown.



Figs. 3-7. *Neocladella platicornis* Xu, sp. nov. 3. Antenna. 4. Mandible. 5. Fore wing. 6. Hind leg. 7. Propodeum.

Holotype ♀, Changchun (43° 54′ N, 125° 18′ E), Jilin Province, 28 July 1992, LOU Jun-Xian, C9506-39.

Distribution. Jilin Province (Changchun).

Diagnosis. This species is similar to *Neocladella compressipes* Girault, 1915, but can be distinguished from the latter by: 1) antennal scape 1.7 times as long as wide; 2) antennal pedicel triangular; 3) all funicular segments equal in length.

Etymology. Named after the flatted antenna.

3 Schilleriella Ghesquiere New record to China

Schilleria Girault, 1932: 1. Type species: *Schilleria pulchra* Girault. [Homonym of *Schilleria* Dahl, 1907]

Schilleriella Ghesquiere, 1946: 369. [Replacement name for *Schilleria* Girault]

Host. Pseudococcidae.

Distribution. Australia; China.

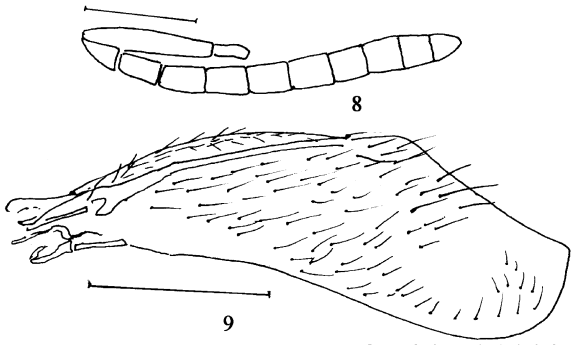
Schilleriella brevipterus **Xu, sp. nov.** (Figs. 8-9)

Female. Body length 1.33 mm. Black. Antennal scape and axillae yellow brown; the following parts yellow: mesoscutum, legs, gaster basally. Wings hyaline.

Head in dorsal view 2.5 times as wide as long, 3.7 times as wide as frontovetexat anterior ocellus, frontovetex with setigerous depressions; ocelli forming an obtuse triangle; POL and OOL 3.1 and 1.0 times as long as diameter of anterior ocellus respectively, anterior ocellus separated with post ocellus by a distance 1.0 times as long as diameter of anterior ocellus, occipital margin rounded; head in frontal view 1.2 times as wide as high, malar space 0.35 times as long as longitudinal diameter of eye; torulli separated from each other by 0.9 times their own longest diameters, upper margin above lowest level of eye; torulli separated from clypeus by the distance 0.56 times as long as the longest diameter of torullus. Mandible 1 denticle and 1 truncation, maxillary palpi 4 segments, labial palpi 3 segments, with pointed apex.

Antennae. Scape expanded ventrolly, 3.0 times as long as maximum width, pedicel 2.1 times as long as wide at apex, 0.7 times as long as first funicular segment; first funicular segment 3.2 times as long as wide, other funicular segments shortened and widened apically, sixth funicular segment 0.7 times as long as wide; clava 3 segmented, as long as fifth-sixth funicular segments combined, slightly wider than sixth funicular segment, truncated apically.

Thorax. Mesoscutum and scutellum convex, with reticulate sculpture; scutellum extended backward with numerous setae. Propodeum long, with "W" shaped



Figs. 8-9. *Schilleriella brevipterus* Xu, sp. nov. 8. Antenna. 9. Fore wing.

ruffle.

Fore wing. Degenerated, 2.5 times as long as wide, submarginal vein with 23 setae, submarginal, marginal and postmarginal veins as long as 4.4, 0.7 and 0.8 times of stigma respectively; basal triangle with sparse and coarse setae; outside marginal vein uniformly pubescent.

Leg. Mid tibiae with 10 spines at apex; spur 1.1 times as long as basal tarsi; basal tarsi as long as the second-fourth tarsi combined.

Gaster. Oval, pointed apically; pygostyli located on middle of gaster, ovipositor not exserted.

Measurement. Taking mid tibia length as 100 (= 0.57 mm), then thorax 98, gaster 111, fore wing 67, ovipositor 89.

Host. A species of mealy bug.

Distribution. Liaoning Province (Dalian).

Specimen examined. Holotype ♀, Dalian (38°9′N, 121°36′E), Liaoning Province, 16 Aug. 1994, LOU Jun-Xian, C9506-94.

Diagnosis. This species is similar to *Schilleriella pulchra* (Girault, 1932), but can be distinguished from the latter by: 1) head 5.3 times as wide as frontovetex at front ocellus; 2) ocelli forming an equilateral triangle; 3) scape 3.0 times as long as wide, the first funicular segment 3.2 times as long as wide; 4) fore wing rudimentary.

Etymology. Named after the shortened wing.

REFERENCES

Girault, A. A. 1915. Australian Hymenoptera Chalcidoidea-V. The family Encyrtidae with descriptions of new genera and species. *Memoirs of the Queensland Museum*, 4: 1-184.

Khlopunov, E. N. 1981. New species of Zeteticontus in the far east area of SSSR (Hym. Encyrtidae). *Zoologicheskii Zhurnal*, 60 (2): 316-318.

Noyes, J. S. 2000. Encyrtidae of Costa Rica, 1. Memoirs of the American Entomological Institute. 62: 1-355.

Tachikawa, T. 1985. On the genus *Paracerchysius* Liao *et* Tachikawa (Hymenoptera: Chalcidoidea: Encyrtidea). *Transactions Shikoku Ent. Soc.*, 17 (1-2): 95.

Trjapitzin, V. A. 1989. Parasitic Hymenoptera of the Fam Encyrtidae of Palaearctics). [In Russian] Zoological Institute, Academy of Science of the USSR. 489pp. (In Russian)

Xu, Z-H and Zhang, J-G. 2004. Two newly recorded genera of Microteryini from China with descriptions of two new species (Hymenoptera, Encyrtidae), *Acta Zootaxonomica Sinica*, 29 (3): 538-540. [动物分类学报]

中国跳小蜂二新纪录属及三新种 (膜翅目, 跳小蜂科)

徐志宏[1,2] 陈俊华[2] 黄 建[1]

1. 生物农药与化学生物学 (福建农林大学) 教育部重点实验室 福州 350002
2. 浙江大学农业与生物技术学院应用昆虫研究所 杭州 310029

摘 要 报道采自福建福州、吉林长春的 3 种跳小蜂, 即桔小食甲跳小蜂 *Cerchysiella citricola* Xu, sp. nov., 寄主为日本方头甲 *Cybocephalis nipponicus* Endr.-Younga, 初级寄主为柑橘类; 扁角尼克跳小蜂 *Neocladella platicornis* Xu, sp. nov. 寄主不明和短翅思奇跳小蜂, 其触角扁平膨大; 短翅思奇跳小蜂 *Schilleriella brevipterus* Xu, sp. nov. 寄主为粉蚧, 其前翅退化缩短。对新种进行了详细描述。本文也是尼克跳小蜂属 *Neocladella* Girault 和思奇跳小蜂属 *Schilleriella* Ghesquiere 在我国分布的首次记录。标本保存在浙江大学农业与生物技术学院应用昆虫研究所。

关键词 膜翅目, 跳小蜂科, 跳小蜂属, 新种.
中图分类号 Q969.546.4

国家自然科学基金项目 (30170760), 福建省教育厅科技三项费项目 (K04036).